

How Do Financial Actors Decide Under Conditions of Fundamental Uncertainty?—The Role of Emotions as a Social Mechanism to Overcome Fundamental Uncertainty

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The article discusses the role of emotions in investment decision-making processes on the financial markets. It will be shown that emotions, in conditions of fundamental uncertainty, may be a supplement to cognitive knowledge. More specifically, it will be shown that under conditions of fundamental uncertainty, emotions of confidence or “good feeling” about anticipated future states will be achieved to serve as a bridge to overcome uncertainty. The findings presented in this article also show that financial investors legitimate their decisions by referring to their emotions. Financial investors claim that emotions direct decisions when the decision-making processes cannot be apprehended by cognition alone. The article also shows that in decisions of fundamental uncertainty cognitive and emotional decision logic complement each other. In order to come to these conclusions data were taken from 17 qualitative in-depth interviews with professional investors from major German banks.

Keywords: economic sociology, sociology of emotions, decision making, uncertainty, emotions, financial markets

Introduction and Research Questions

What is the role of emotions in investment decision processes on the financial markets? How do emotions affect decision-making processes? Up until recently economic theorists have not assigned special significance to the impact that emotions have on decision-making. Economic sociologists usually claim that decisions are embedded within networks, institutions, and structures, though, some emphasize the role of emotions in economic decision-making processes (DiMaggio, 2002; Beckert, 2006; Bandelj, 2009). In this article, I take up this latter line of thinking and seek to provide insights into the role of emotion in economic decision making under conditions of fundamental uncertainty on financial markets. Contrary to economic theories and in line with findings by cognitive scientists (Damasio, 2004), I wish to show that emotions, in situations of fundamental uncertainty, as analysed in this article, may supplement cognitive knowledge and help to overcome fundamental uncertainty. To do so, I will refer to data taken from 17 in-depth interviews with professional investors from major German banks. These investors claim that emotions take over their decisions in situations of fundamental uncertainty. Despite methodological concerns which will be discussed, I take these ex post interpretations of economic decisions as indicators of the role of emotions in the actual decision

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situation. The findings presented in this article also show that financial investors, *ex post*, legitimate their decisions by referring to their emotions.

In the following, I will first provide a brief overview of economic and sociological approaches to explain economic decision-making under fundamental uncertainty in order to sharpen the theoretical background from where the argument presented in this article takes off (2). Second, I will introduce the understanding of the concepts of emotion and decision being applied in this article (3). Afterwards I present empirical data from recent research in which I analyse the question of the role of emotions in economic decision making (4). I conclude by elaborating upon the idea that emotions and cognitive knowledge are supplements to economic decision-making, and discuss the implications for future research (5).

Economic Decision-Making Under Fundamental Uncertainty

To understand the importance of the role played by feelings in economic decision-making in situations of fundamental uncertainty, it is necessary to elaborate on the relation between notions of uncertainty, knowledge, and feelings in the economic decision-making process. This article is based on the assumption that economic decisions on the financial markets are characterized by fundamental uncertainty (Orléan, 2011; Beckert, 2013). I use the term “uncertainty” to designate situations where there is (only) uncertainty regarding the cognitive capabilities of ego; the term “fundamental uncertainty” I apply to situations where there is uncertainty regarding ego’s capabilities and, in addition, uncertainty resulting from the non-predetermined actions of alter ego and the reflexivity of the interaction situation (where the actions of alter have a bearing on the action of ego and vice versa) (Dequech, 1999; Beckert & Berghoff, 2013). The article criticizes the assumptions of standard economic theory, namely that actors can identify all possible future states and that they know probabilities of the occurrence of those future states (Knight, 1985). In this line of thinking, uncertainty is transformed into risk which is calculable and the future becomes predictable (Lucas, 1972; Knight, 1985).

These assumptions about a predictable future based on rational expectations have been criticized by economists and sociologists alike (Keynes, 1936, p. 152; Dequech, 1999; Dequech, 2000; Dequech, 2006; Beckert, 2013). These critiques question the decision makers’ cognitive abilities (Simon, 1993; Cohen, March, & Olsen, 1972), and they shed doubt on the idea that a full understanding of all relevant information can be possible (Keynes, 1936), as well as, stress the uncertainty of future outcomes of decisions because of the non-predetermined actions of alter, and because of “the possibility of creativity and non-predetermined structural change”, such as innovations (Dequech, 2006, pp. 112-117; see also Buchanan & Vanberg, 2008, p. 380f.; Beckert, 2013). Cognitive biases, unforeseeable creativity and innovation, the complexity and reflexivity of social interactions—as e.g., economic decisions about financial markets—are characterized by a fundamental uncertainty (Dequech, 1999; Dequech, 2006). Fundamental uncertainty, however, does not imply complete ignorance; rather, that knowledge is still present, though there are different knowledge and non-knowledge (Smithson, 2008; Wilkesmann, 2010). In all instances, knowledge needs to be supplemented in order to motivate decisions which are directed into an unknown future (Keynes, 1936, p. 148; Dequech, 1999, p. 416f.).

Following Barbalet (1998), Dequech (2000), and Beckert (2013), I argue that economic decisions on financial markets, though taking place under fundamental uncertainty, are dependent upon some form of knowledge regarding the range of possible future outcomes, as well as imaginaries or fictions about future situations which provide an orientation toward decisions despite the absence of complete knowledge (Beckert,

2013, p. 240). Additionally, I want to show in this article that decision also needs some form of feeling of confidence or the “good feeling” that the imagined future states will be achieved in order to decide upon (Barbalet, 1998; Dequech, 1999; Dequech, 2000; Bandelj, 2009; Neckel, 2011). I use the terms “confidence” and “good feeling” as synonymous expressions for an emotionally based optimistic view of the future. While some sociologists and economics have stressed the role of script following in situations of fundamental uncertainty (Keynes, 1964; DiMaggio, 2002), I will argue in line with sociologists, such as Barbalet (1998), Pixley (2004), Berezin (2005), Bandelj (2009), and Beckert (2013) and in line with some economic thinkers (Shiller, 2000; Damasio, 2004; Bechara & Damasio, 2005) that the “good feeling” of the imagined future can be a relevant component of decisions under fundamental uncertainty (Barbalet, 1998, p. 85; see also Dequech, 2000, p. 504).

Emotion and Decision

Emotion

The world of emotions presents a range of methodological problems for sociologists since our interpretations about emotions and feelings are always a second order interpretation of the emotional experience. However, this does not imply that we, as sociologists, must relegate our interpretations of the emotional experience to the expressive parts of it. In order to make any reasonable claim about emotional experiences, we need an understanding of the phenomenon “emotions”, how emotions are constituted and what the essence of the emotional experience is. If not so, we will very quickly sense the limits of our expressive capabilities regarding claims of the social relevance of emotions. For example, if we talk about the rediscovery of emotions, we need to have some sense of what has been rediscovered, a semantic term, a mimetic expression, a physiological process, or a cognitive evaluation (Schützeichel, 2008). Additionally, how we come to conceive of emotions determines also our methodological approach to the sociological study of emotions.

Zinck and Newen (2008) distinguish classes of emotions which develop at different stages during the lifetime. Relevant for this argument and of interest in my study are primary and secondary cognitive emotions, which develop ontologically late¹. With primary and secondary cognitive emotions, the cultural influence is stronger compared to basic emotions. Primary cognitive emotions presuppose social experiences (e.g., fear because of a person), whereas secondary cognitive emotions are based on complex social relations and experiences. For example, in order to envy a person, knowledge about complex social relations is needed; in order to have a “good feeling” about something, nuanced knowledge and multiple experiences of similar and differing situations are, as a rule, needed (Neckel, 1991; Gigerenzer, 2007; Schützeichel, 2008).

Emotions and cognitions go hand in hand, but emotions cannot be reduced to cognitive, nor voluntary elements alone. Therefore I argue on behalf of a cognitive phenomenological understanding of emotions, according to which emotions are defined as a separate category of experience which affects the body though, it is not limited to a bodily experience alone. Emotions also can accompany thoughts and wishes but they do not necessarily merge with them (Goldie, 2000, p. 60; Senge, 2013). Following Schwarz-Friesel (2007, p. 43f.), I understand “emotions” as a complex of inner experiences that are physical, cognitive, and psychological. It is

¹ The other two classes are: At first, newborns show pre-emotions which are diffuse emotional reactions oriented towards physiological need fulfillment. Secondly, as a child basic emotions develop which are programs of affects that can be activated in typical situations of the human condition: Fear in the face of danger. In the case of basic emotions cultural influence is little. Cultural influence rises when cognitive emotions develop (Zinck & Newen, 2008).

stressed here that the nature of an emotional experience can only be captured by way of an inner experience that maintains its essence (Heller, 1980). The immediate access to emotions is hence a first-person privilege. The sociological analysis of emotions is always a reconstruction of a higher order than the experience of emotion itself. The moment of an emotional experience is irretrievably lost (Reichert, 1996, p. 84f.).

If the theoretical premises are taken seriously, the sociology of emotions, in entirely different theoretical traditions, provides an interesting, even if not a very concise, answer to the question under discussion (Berger, 1998; Katz, 1999; Plessner, 2003; Fuchs, 2004). Following Niklas Luhmann (1984), Peter Fuchs claims that emotions² describe the parts of the perceived that cannot be described: “Those who describe love, hatred, repulsion, fear or sorrow abstract (in the sense of withdrawal) rigidly from the compactness and abundance of perceptions” (Fuchs, 2004, p. 92). Thus in the cases where the communication of the perceived means a massive reduction in perceived complexity, emotions are described as referring to the remaining perceptual omission that cannot be communicated (Hellmann, 2011). In this way, an emotion is something that describes a deficit that refers to more perception and less communicability. To say “I love you” is ordinary and meaningless on the one hand; however, those concerned know that infinitely more is being said (Fuchs, 2004, p. 17).

The deficit resulting from the expression of emotions as described by Fuchs can also be found in Berger (1998), Plessner (2003), and Katz (1999). The authors do not use the term “deficit”, but they also refer to a different order, which cannot be represented in a way that is familiar to us. Using humour as an example, Berger demonstrates how far laughter, understood as a communicative expression of an emotion, refers to a world that, although seemingly more real than the usual world—at the time when the experience takes place—is still beyond the familiar world, and cannot be shared with anyone else (Berger, 1998, p. 242f.). Laughter refers to this unfamiliar world but does not represent it. Similarly, Plessner (2003) describes laughter and crying as phenomena which in experience cannot be articulated and explained³. What the afore-mentioned analyses of emotions have in common is the idea that individuals who experience emotions are confronted with a complexity, or an “open world” as Plessner puts it that cannot be meaningfully evaluated or articulated. Thus, the social expression of emotions refers to a gap, a deficit, an inability to comprehend such cognitive complexity. An individual, who brings emotions into play, shows that there is a deeper meaning behind what can be said. Herewith, he/she conveys the helplessness of the intellectual and/or verbal ability in the face of the complexity that is perceived as overwhelming. To quote Jack Katz in his classic on the sociology of emotions “How Emotions Work” (Katz, 1999, p. 212), “part of the project of crying is to cry in a way that explains why one cannot say what is meant, intended, or felt”. Thus, the social expression of feelings always refers to a gap, a

² Fuchs uses the term “Gefühl” which would translate into “feelings”. As having said before: I understand “emotions” as a complex of inner experiences that are physical, cognitive, and psychological. Fuchs reserves the term “feeling” for a conscious and linguistically “communicable” part of emotions (also see Otto, Euler, Harald, & Mandl, 2000, p. 13). A reverse attribution of “emotions” and “feelings” can be found in literature, (i.e., the term “feeling” refers to a more complex field of experience than “emotion” and the term “emotion” describes a linguistically communicable part of experience) (e.g., Fries, 2004). Some authors also use the terms synonymously (Stoeva-Holm, 2005). In this article, I will not distinguish between the terms “emotion” and “feeling”, because my interview partners use these terms interchangeably. Analytically, I would follow Otto et al. (2000, p. 13) to reserve the term “emotion” for the more complex field of experience and “feeling” for the linguistically communicable part of emotion; this distinction is suggested by the linguistic analysis of the everyday use of both the terms (compare Schwarz-Friesel, 2007, p. 140 *et seq.*).

³ While to Plessner, crying and laughter are signs of the complexity of human experience that cannot be managed meaningfully (Plessner, 2003, p. 378), there are other authors who show that Plessner’s position is one possible position but that there are other plausible interpretations (see e.g., Katz, 1999, p. 212).

deficit, an incomprehension of a complexity. From a sociological perspective, the expression of emotions refers to the two worlds that cannot be brought into congruence: the world of perception and the world of cognitive evaluation.

Decision

If we consider these observations from a perspective that questions why actors point out that emotions assume control over decisions in situations of fundamental uncertainty, then an obvious well-founded assumption is that this is typical of the situation where the conscious is not able to provide a meaningful summary of the complexity of the world. Here decisions are primarily understood as a mental process that depends upon the meaning and thus stands in the tradition of Alfred Schütz's social phenomenology (Schütz & Luckmann, 1979a, p. 42; Schütz, 2004, p. 255)⁴.

"Decision-making" according to Schütz and Luckmann is a mental process of choosing a specific action draft from various drafts (Plenz, 2009). This "choosing" is not always an entirely conscious act. "Choosing" also implies the (unconscious) interpretation of "petite perceptions". "Petite perceptions", according to Schütz, are central for the choice between drafts for action. Petite Perceptions are sensations we are not conscious about, because the impressions are too little or too many at a time that these impressions can neither be distinguished, nor differentiated (Schütz, 2004, p. 307). These petite perceptions direct, without a conscious reflection, many of our actions (Schütz, 2004, p. 307).

In order for a mental process to become visible as a decision, it must necessarily lead to an action or to a conscious refraining from it that the sociological observer can notice. Decisions always depend on the following action, although they do not merge into it (also see Brunsson, 1982)⁵.

With reference to the role of emotions in decision-making situations under conditions of fundamental uncertainty, the theoretical ideas presented here imply that emotions or emotional states can be part of what Schütz calls "petite perceptions". Therefore, emotions can be crucial for decision-making in situations of fundamental uncertainty. Investment decisions on financial markets are an example of such conditions. Consequently, the following argument (4, 5) will explore whether or not investment decisions are actually made on the basis of emotions and if the reference to emotions indicate a deficit or problem in coping with such cognitive complexities.

Investment Decision

As I have previously noted, investment decisions on financial markets are characterized by conditions of fundamental uncertainty. Uncertainties are especially problematic for economic decisions because they are oriented toward the maximization of utility (Granovetter, 1985; Beckert 1996). How are the actors able to make their decisions following their preferences in order to maximize their benefits in highly contingent situations

⁴ Different from Weber's actions theory (Weber, 1972) and economic actions theory of Esser (1993), Schütz does not understand decision-making and acting as driven by benefit or norm. Rather, he assumes that collectively shared knowledge structures are historically convertible and that the actor is subjectively rooted within them (Schütz & Luckmann, 1979a; Schütz & Luckmann, 1979b). When cognitive knowledge systems change, so does meaningful behaviour.

⁵ If we take the definition of decision-making that has been chosen here as a basis, we may be able to think through the process in which the sociological observer can notice that an action has been preceded by a decision. What makes an action become a decision from the observer's point of view? For an observer, an action only appears to be a decision if it becomes obvious from the action that the actor must choose between two alternatives before the action. This "having had to choose" must become visible and must dominate the action. For example, this can be done by means of meta-communication (see Luhmann, 2011, p. 123 *et seq.*).

(Beckert, 1996, p. 126)? In decision-making situations on financial markets characterized by fundamental uncertainty, it is impossible for the actors to design rational strategies in order to maximize their benefits, since the consequences of their own actions cannot be anticipated in full. It has to be assumed that investors make both right and wrong decisions upon the basis of both right and wrong assumptions and *vice versa* (Beckert, 1996, pp.126-127).

This problem becomes even more important when one considers the volatility of financial markets and foreseen market dynamics coming out of the financial crisis (Krämer, 2009). In October 2008 the financial markets yielded losses of 4.5 billion Euros worldwide. In May of 2010, as a result of the so-called “Flash Crash” on American stock exchanges, exchange rates collapsed by more than 9% within a few minutes. Many of the exchange losses were absorbed again within minutes. Economic programmes worth billions, threat the bankruptcy of national economies, the nationalization of banks, and massive capital outflows leading to a range of unforeseen consequences (Beyer, 2009).

In the face of such volatility, financial actors are unable to accurately guess whether the price of securities will fall or rise. Speculators must be able to determine the ebb and flow of market conditions (Windolf, 2005; Flam, 2013). So what do investors do if they do not know exactly how they can optimize their profits or make any probability statements available (Taleb, 2008a; Flam, 2013)? How do investors make decisions on financial markets in situations of fundamental uncertainty, and what significance do investors ascribe to the emotional experience in the decision-making process? Present research dedicated to the analysis of investment decisions on the financial markets shows evidence for the importance of emotions in decisions on the financial markets. Abolafia’s ethnographic study “Making Markets: Opportunism and Restraint on Wall Street” (2002) is of importance here because he focuses on questions linking emotions and decision-making. Here, Abolafia analyses the culture of bond trading in New York and sums up his experience and analysis:

Bond traders bore a striking resemblance to *homo economicus*: the highly rational and self-interested decision maker portrayed in economists’ models. Bond traders’ behaviour appeared closer than I expected of the economists’ assumptions of perfect rationality and unambiguous self-interest (Abolafia, 2002, p. 95).

This perfect rationality is identified by Abolafia as the “hyper rationality” of decision-making and, next to technical analyses, is primarily based upon “intuitive judgements in their decision process” (Abolafia, 2002, p. 100). Intuitive decision-making is understood as a reflexive reaction to sublime information. A trader understands if a trading decision is right “because it felt right or felt good” (Abolafia, 2002, p. 102). This good or positive feeling often remains beyond conscious reflection here; it is learnt through experience through “trial and error”, whereby this experience cannot be made explicit by the traders (Abolafia, 2002, p. 102). Hence, according to Abolafia trading deals are often made not on the basis of a calculated evaluation of alternatives but rather on individual, non-explicable perceptions. A representative of the theory of probability, Neye (2004), claims that successful traders, the so-called “lucky fools”, normally follow their emotions and it is often the coincidence expressed by the metaphor “Black Swan” that helps make big money in the financial markets (Taleb, 2008b). Hassoun (2005) makes an even more emphatic statement saying that although he does not analyse investment decisions *per se*, he can make it clear, to which extent “Emotions on the Trading Floor” comprise a fundamental element of the dynamics characterizing equity trading on the former Paris Stock Exchange. According to Hassoun, the apparent expression of emotions stimulates hazardous behaviour that is essential for rapid and continuous trading activity (Hassoun, 2005, p. 117). In their analysis of global

microstructures, Cetina and Brügger (2005, p. 159) also provide evidence of the emotional commitment of traders to the market and other players. High emotionality, the presence of fear and greed, are typically expressed by words “that reflect the emotions of an experienced assault and the violence of the market” (Cetina & Brügger, 2005; Brügger, 1999, pp. 195-196). Neckel (2011) demonstrates the extent to which a specific emotional disposition—greed—is typical of the actors operating within the framework of financial markets and how greed materializes. For that he describes the extent to which permanent demands for actions in the financial markets, especially the logic of profit-maximization of the banks with regard to speculative yield, provoke greed. There is no deterministic programme of actions that emerges here. Rather, institutional structures, situational possibilities, as well as accumulated experiences in the implementation of such actions are necessary for the implementation of actions stimulated by greed.

The above-mentioned works show that high emotionality and emotional outbursts are typical of the trade with financial instruments, when they are traded “over the counter” or on the stock exchange; moreover, the proceedings are also largely supported and influenced by them. However, works analysing the significance of emotions for investment decisions are still quite rare and their results have not been systematized as yet. The following sections show the results of a recent research project that explicitly pursues the question of the role of emotions for investment decisions under fundamental uncertainty on the financial markets.

Methods and Analysis

The following findings are based on 17 qualitative expert interviews conducted by the author between 2009 and 2010 and between 2014 and 2015. Interview partners were male professional investors, among them the Chief Investment Officers (CIO) of major public and private German banks, involving private wealth managers of assets estimated to be at least 25 million Euros and more, self-employed wealth managers with an average value of 164 million Euros, and heads of the so-called “family offices” that manage the assets of wealthy families, as well as stock market traders, who work for internationally renowned investment firms. Actors were regarded as “professional financial investors” if they were employed in a company which conducts its business primarily on the financial markets. Additionally, two interviews were conducted with investors who are self-employed and manage either their own funds or who manage money wealthy clients. The interviewees represented the two areas of asset management and day trading. Representatives of asset management were fund managers and divisional manager. Representatives of the day trading business were dealer and department manager. Further, the respondents were working in different markets as there are capital and currency markets. Although a sample of 17 interview partners cannot claim any generalizability, the method of sample selection was aimed, on the one hand, at covering a wide variety of actors with respect to the assumed influence of calculative and affective practices (Callon & Muniesa, 2005; Slovic, Finucane, Peters, & MacGregor, 2007). The selection of interview partners follows the principles of “theoretical sampling” (Strauss & Corbin, 1996). Since the design of the analysis is rather exploratory, it tries to capture the role of emotions in decisions under conditions of fundamental uncertainty rather than being aimed at a generalizability of findings, a sample which captured a variety of cases seems appropriate for this purpose. It is not the aim of this article to uncover the quantitative distribution of the findings put forth.

The duration of the interviews was between 40 minutes and 120 minutes. They were arranged as an “open interview” for the interviewees and as a “guided interview” (Meuser & Nagel, 1991, p. 448f.) for the interviewer. My intention during the interviews was to arrive at a detailed description on how the “every-day” work-life

looks like, what factors influence decision making (e.g., newspapers, television, colleagues, formal knowledge, emotion). I also confronted the interview partners with specific investment situations (e.g., “black Monday” in 1987; dot-com bubble; October 2008 etc.) and asked them to recall the situation, their thoughts, and their decisions. I also asked what competencies a good investor should show and what the competency of my interview partner is.

The interview partners were classified as experts in accordance with their “institutionalized competence relating to the construction of reality” (Hitzler, Hohner, & Maeder, 1994). The interviews were recorded and transcribed, the participants remained anonymous. The data were interpreted according to the hermeneutical methods of text interpretations (Schröer, 1997; Bohnsack, 2003; Reichertz & Englert, 2011).

By case comparisons minimizing and maximizing differences regarding the role of emotions during the decision process were identified. Dimensions of comparison were, on the one hand, a pure emotional basis of decisions and, on the other hand, a pure cognitive evaluative basis of decisions. Data analysis started with one case that seemed particularly fruitful with regard to the research question, a case where a strong emotional influence could be identified and was openly presented. This case was selected in sight of all the interview material. This case was analysed by a sequence analysis. For the comparative analysis the most differing and most similar cases were identified and analysed in order to specify typical situations when emotions influenced decisions.

Methodologically, the retrospective analysis of emotions seems problematic since the retrospective analysis of emotions is influenced by selective memories and not all former emotional states may be easily extracted from the interview material. Thus, the researcher has had to rely on the interview data not knowing whether or not the data accurately represents social reality. However this form of selection applies to all interview data (Flick, 2000). Therefore I cannot prove whether the claims by the interviewees represent social reality or not, but I can test the plausibility of their interpretations during the interview process by repetitive questioning, asking for examples and by the use of other interview techniques⁶. However, within my analysis I am not so much concerned whether the statements by the interviews truly represent social reality or not. Rather, I am more interested in how financial actors construct their reality and how they interpret the social world around them (Reichertz, 1996).

When we approach the interview material with the question, why do investors claim that in some situations their emotions direct their decisions, we can recognize the following investor types among the interviewees:

There are four dominant types of asset managers: the Entrepreneur, the Technician, the Statistician, and the Gambler—that are typical of specific investment strategies. The choice of the investment strategy depends on the respective concept of the dominant organization of the market. Such investment strategies can be described as “decision premises”, since they create a rule for later decision-making and herewith pre-construct the decisions (Luhmann, 1988, p. 168f.). The four types can be characterized as follows:

- The type “Statistician” mainly uses mathematical models for financial management in order to calculate the probabilities and in order to try to forecast future market developments. The Statistician thinks in both long-term and short-term investment horizons.

⁶ Flam (2013, p. 35) critically questions the self-ascribed decision making strategies of financial actors that other researchers have extrapolated. She refers to structural components, organizational realities, and feeling rules in order to explain why investment decision making appears to be an art.

- The “Entrepreneur” can generally be characterized as a long-term oriented investor, whose significant decision premises lie in the fundamental or economic analysis during the decision-making processes. By means of this analysis prices of bonds and securities are calculated on the basis of business data and taking into account the economic environment, the so-called fundamental data.

- The “Technician” primarily uses the chart analysis as a decision premise. In chart analysis the appropriate security price is calculated on the basis of its relation to other stock exchange prices. In chart analysis the valuation of securities does not go beyond the observation of the developments of the financial markets, whereas in fundamental analysis there is a connection back to the real economy. The Technician is characterized by both mid-term and short-term investment horizons.

- The “Gambler”, who, as a pendant to the Entrepreneur, is mostly interested in short-term transactions and is often involved in day-trading activities. His decision premises are based on an inner talent to recognize or meet his true luck. Interestingly, the Gambler was presented as a negative distinction figure by almost all of my interview partners, everyone distances themselves from him. Empirically, however, none of the interviewees could prove that investment decisions were made independently of knowledge and proficiency (see Stäheli, 2007, p. 45f.). Therefore, for the cases analysed here, the Gambler is more a theoretical distinction figure rather than an empirical personality.

These four types can be regarded as ideal types which identify typical forms of investment strategies. These types may not be understood as generalizations from the empirical data, but rather underscore certain characteristics which the researcher regards as essential (Weber, 1972, p. 9f.). While in the empirical world, the interviewees claim to use a mixture of different strategies, most of whom view only one of them as crucial. With these types, I stress the dominant investment strategy because I assumed that the role of emotions differ among these strategies. For example, I assumed that investors who base their decisions on fundamental analysis are more likely to acknowledge the role of emotions while investors following mathematical models might be more likely to focus on numbers and “hard facts”.

In light of the research question, it is interesting to note that the investment behaviour of all interview partners without exception is determined by the above-mentioned strategies that mark the framework for action they follow, and this is explicitly stressed by the actors as well. Nevertheless it is clear, and the investors admit it, that although this dominant framework for action is rarely abandoned, it is done on a regular basis; moreover, sometimes they must leave the framework, since the market dynamics cannot be forecasted according to the rules of the chosen strategies any more. And it is at this point where the familiar ground must be left. The interviewees typically emphasize the significance of feelings as a basis for decision-making. In the following paragraphs I am going to present the findings of my research. For each ideal type I will pick up one case that represents the principal features of each type out of the collected material, in order to dwell upon the similarities and also the differences in the way emotions are treated during making investment decisions.

Statistician: Mathematical Model for Finance

The so-called “mathematical models for finance” normally combine various investment strategies and it would be correct to describe them as “multi-factor models”. As a rule such models comprise over 100 factors that include both fundamental data and technical analyses by taking into account price movements, sentiment indicators, opinion barometers and others. The evaluation of the factors is determined by the model; nevertheless, individual factors are sometimes measured twice due to poor market techniques without replacing

the model. The model is calculated by forecasting the probability of future market movements and allocation recommendations. Mr. X, CIO of a private bank in Frankfurt/Main, who was involved in the development of models himself and who I identified as a “Statistician”, describes the model as “rigid” and “very inflexible”. Furthermore, Mr. X also claims that the model has its “weak point” that he is aware of. “Absolute recession phases” or “depression phases” in particular, like those that took place in 2008, cannot be covered by the model in their tangible dynamics and intensity. That is why Mr. X made the following decision in July 2008, “I suspend this model consciously, so to say.” This decision has proved undoubtedly right in retrospect. What turned out to be a problem was getting back to the model, because the market has recovered extraordinarily fast. Mr. X regarded this clear upturn after the crisis, to which the model responded by respective recommendations, suspiciously and as a result he accepted the recommendations of the model very conservatively and therefore, unfortunately, could not fully benefit from the positive market development. Although his decision to suspend the model was right, Mr. X regrets having abandoned the model because by doing that he has also abandoned his strategy. Besides, there is a legal risk for the cases where the abandonment of the model causes losses for the clients. Mr. X therefore explicitly stresses the fact that the abandonment “[should] only take place once or perhaps twice in a couple of years.” Thus, the abandonment of the strategy is estimated as negative on the one hand but as necessary on the other. The reason for temporary suspension lies in the fact that the model is not suitable for certain times of crisis, which is why Mr. X. is working on the improvement of his model. For the future Mr. X presumes that the influence of the financial supervisory authorities stipulating a better regulated investment strategy will increase and considerable liability risks by the bank are to be expected. It would then not be possible any longer to suspend the model due to liability risks. This expected future scenario will represent a serious dilemma for Mr. X, since he is certain that:

“The disadvantage is the times of crisis, so that one does not even have a possibility to intervene as strongly as would be appropriate...[it] is really impossible to interfere actively one more time.”

How the moments of intervention and abandonment of the model are induced is of interest for the question under discussion, since the abandonment is not calculated by the model but induced by emotions: Mr. X points out that in order to intervene correctly, “it is necessary to have certain experience and feeling for the situation.” For Mr. X, experience and feeling go side by side. Experience and feeling always become significant when the situations cannot be understood adequately following the logic of the chosen strategy. One needs experience “in order to simply estimate what is possible at all.” The feeling then tells you “when the time is right to deviate [from the model].” Nevertheless Mr. X points out that he can rely on his feeling, “you always know everything afterwards. It is like this... You know, this is exactly the problem here. I am a manager because I am self-confident but always tell my staff, I am not a guru. Why do I say this? ... Because there is no one, who is right all the time. I am honest. Portfolio management is a trade; it requires experience, discipline and courage. Courage to decide that the situations are not what they seem to be. You need common sense, a correct feeling to be able to say I am going to do it like this and not like that now.”

In these passages Mr. X stresses the role of feelings and emotions in certain decision situations. He emphasises the courage and a feeling of confidence or optimism that he will meet the right decision. This confidence becomes visible as a competence, as something that Mr. X “has:”

“I really think that I have [a correct feeling] but you have to be a little submissive here, you have to understand clearly, whatever the situation, that you have a different picture than it is in reality.”

It is obvious from the interview with Mr. X that in principle Mr. X follows his model systematically. At the same time he is aware of the times of crisis, where the rules of the model should not be followed. However, the decision not to follow the model is not made by the model but on the basis of common sense or the right feeling. Mr. X relies on emotional inputs in situations where he has to act against the official rules of the model. Such situations are crisis situations for Mr. X since they do not follow the allegedly objective norms. Thus, one relies upon feelings when the objective assessment standards fail. Nevertheless, Mr. X admits that he treats his feeling with a certain degree of caution because he can also be mistaken. Mr. X emphasizes again that he is always uncertain when he makes a feeling-induced decision.

From the collected data we cannot proof whether Mr. X actually follows his emotional impulse or not, when he refers to feelings. It is important, however, that he refers to the importance of feelings in those situations where his rational action strategies, his following a mathematical model, fail and he cannot rely on any objective rule for further actions. Feelings therefore become a kind of supplement because they fill in the space of a missing strategy. As Fuchs puts it: In the case of Mr. X feelings point to a strategic deficit. By mobilizing feelings as a resource, Mr. X shows that he (still) has the crisis situation under control.

Entrepreneur: Fundamental Analysis

Mr. Y, a prototype of an entrepreneur, who thinks primarily in long terms, sees fundamental analysis as a central decision premise for the assessment of the financial markets. Mr. Y has been the head of a family office for 10 years and specializes primarily on foreign exchange trading. Precise knowledge of national economies, cultures, available commodities, and political developments in individual countries, whose currencies are traded, is necessary for foreign exchange trading. This knowledge is acquired from the nine employees of the family office on the one hand, as well as from Mr. Y's exclusive contracts to economists and analysts of the banks on the other hand. His personal network has grown over the years and his personal contact with managers is also important for "entrepreneurial activities" and direct access to investment ideas. Hence, Mr. Y, contrary to the previously presented type "Statistician", whom he criticizes and from whom he distances himself, does not follow mathematical models but the results of fundamental analyses by experts and analysts. Consequently, information, charts and fundamental data in particular are crucial parameters for investment decisions. Furthermore, Mr. Y emphasizes the importance of "emotions". While the above-mentioned factors aim at generating "objective information", the question arises, as to what extent emotions are important for investment decisions. As seen from the following quote, "emotions" also provide relevant information and can be regarded as a form of knowing, but it is rather a vague apprehension, accompanied by uncertainty:

"It is an emotional..., it is a feeling, just like at home. You come home and you have a feeling something is wrong, don't you? Do you know this? Your parents are unwell, something is wrong with your children, somehow. Somehow, it is going to be a bad evening here, right? Well. It's the same here, isn't it? You realise that the parameters are correct but still, you don't really dare; or the other way around, you think, 'Leave it.' I think something will happen there. It's this feeling..."

In this quote, Mr. Y generalizes about the nature of feelings. Feelings provide him with information which he cannot apprehend cognitively. On the contrary, the feeling signalizes a truth which contradicts the evaluation of the parameters. Because feelings may provide different information than a cognitive evaluation of the situation would allow, these feelings are accompanied by some form of uncertainty as indicated by the repeated (five times) unspecified words like "somehow", "something", etc. Mr. Y is not sure but he has a feeling that

tells him what needs to be done. Similar to Mr. X, in this case feelings and uncertainty are also very close. For Mr. Y, it is the feeling that helps bridge the uncertainty that sets in through not secured knowledge: “Something is coming up. When it comes, if it comes, maybe it will pass by, you don’t know exactly. But there is something there, something I call a feeling...”

These statements make it clear that the “feeling” also provides Mr. Y with information as to how the situation can be estimated. The “feeling” has a signal effect; it determines what to do and what not to do. The “feeling” provides information that is embedded in the subjective stock of knowledge and is directly relevant for decision-making as indicated in the next paragraph:

“This [the feeling, K.S.] is the knowledge; or the other way around. You are standing on the beach; the sun is still high up on your right. You have lied in the sun. It is warm. And on the other side, back there, there is something weird coming up, something hazy; you don’t really know what it is. Is it a thunderstorm? Is it not? You don’t know exactly, right? And it is approaching really fast. And you are thinking: Ah, I can still stay on the beach for another half an hour, right? Because it is still so sunny. It’s like this, these, these, these, things. Something is coming up. When it comes, if it comes, maybe it will pass by, you are not sure. But it is there, this is the feeling I mean, to put vividly.”

The feeling allows Mr. Y to make decisions in principally uncertain situations. This becomes even more obvious in the following passage, where he stresses once again that decisions must be made despite the uncertainty:

“It was the feeling I was talking about. You have a, you live in a, or on the contrary you live in a three-dimensional space, which you actually know pretty well. From time to time the doors and the windows open and something enters from the outside. You notice that, too. You just don’t know exactly what it is. And what effect it has. And you have to react to that... And you also have to make decisions. If you want to earn money you must make a decision. You don’t know if it is correct. It can become right, at some point later, but at first it can be a wrong decision.”

Thus, the feeling provides a clue as to what decision should be made in a situation, where it is not possible to decide unequivocally. Mr. Y refers to the significance of an emotional experience, feelings in the cases where the dominant decision premise does not adequately answer the question what decision should be made in a particular situation. The feeling enables Mr. Y to make decisions in such situations and to overcome the principally existing strategic deficit. It is also remarkable that there is certain humility regarding the decisions here, since there is always a possibility that wrong decisions have been made.

Technician: Chart Analysis

Mr. Z, a representative of the type “Technician”, first worked as an analyst for a big US Investment company in New York and later was responsible for the support of 10 clients, whose portfolios he managed. He is now working as a self-employed asset manager in Germany and is managing assets of about 40 private clients (I do not have the information about the volumes of the assets). No special formal training, (e.g., training as a banker), is necessary for this job. Mr. Z is convinced of the forecasting ability of the chart method. Time-wise his investment strategy is short or mid-term and comprises investments that are only held on a daily basis and investments that he holds for several months. While making investment decisions Mr. Z concentrates on the movements of the market and the recommendations of analysts and the in-house research team. Mr. Z decides which recommendation to follow autarkically because:

“If one has been working on the market for some time one realises that out of all the recommendations by investment bankers perhaps 50 percent are correct. So it’s a game of chance anyway. Fifty are correct, so as a rule between 40 and 60 percent are correct, 40 to 60 fall out, they are wrong.”

According to Mr. Z, as shown in the quotation above, the analyst's approach is compared to gambling. Consequently, he does not find it advisable to follow the recommendations blindly. Mr. Z regards the ability of making decisions despite the uncertain recommendations by the analysts as one of the most important competencies:

"Well, ok, you don't always make the right decision at the right moment. I think the trick is to make more correct decisions than wrong ones. It is very, very important to make decisions at all. Well, and I think that's what differs people from each other, some simply need too long to make a decision."

The most important thing for Mr. Z is to be able to react in the first place. In order to react he follows the facts, which, he believes, consist of recommendations and share prices. He concentrates on the price developments in particular, rather than on the fundamental data behind them. He describes his approach as strategic and "very value-neutral. You simply see a curve and profit and loss." His approach is strategic because Mr. Z relies upon the chart methods. The points at which to sell and to buy are set by the chart methods. At the same time Mr. Z admits that the pre-determined points are subject to interpretation:

"Well, you know, one extends the points, right? If everything goes well, you forget those points. So you don't somehow follow a fixed strategy straight away. You have this rule but I am sure I have broken it more than twice... You still keep your strategy. But you have possibilities and I do think that it depends on your feeling, that you think, well, look, it is rising at the moment. I don't think that it will stop rising at this point. I am staying here."

This passage clearly shows his meandering between a fixed strategy, in this case the chart methods, and the abandonment of the strategy in order to achieve the greatest profit. The decision when and if the strategy is abandoned is a feeling-induced decision. Mr. Z is sure that a good investor needs a "good feeling". It is this "good feeling" that distinguishes a good investor from a bad one. The "good feeling" defines the points at which to buy and to sell and proves the competence of a successful investor, despite the absence of knowledge about the actual development of the markets:

"You think you know so much. You always believe you can see into the future I think everyone who works on the stock exchange believes it. I think you need this faith somehow, so that you can say, hey, I have been right in 70, in 80 percent of cases, I know what is right and I can do it, somehow."

We can see from this quote, similar to the statements from the Statistician, that Mr. Z has feelings of confidence that the aims of his decision will be met. This "faith" in the "good feeling" is a necessary component if one works on the financial market and has to make investment decisions. However, he also admits that despite this "good feeling" he cannot know cognitively what the future will bring about:

"And emotionally it is simply like this: What do I think will happen? And that's it; somehow, no one really knows it."

There is a matching ratio between these interview passages cited and the investment strategy described by Mr. Z. The quoted passages make the meandering between knowing and not-knowing clear. It is necessary to be confident that one's decisions are correct in order to work in the business at all. The principal not-knowing about the correctness of the decisions that have been made must be constantly ignored here. At the same time, Mr. Z cannot continually deny the principal not-knowing; he knows why and therefore—in the quote above—he refers to an emotional understanding of the forecast of the future market developments. While realizing the alteration of knowing and not-knowing, there is a corresponding alteration in the assessment of market dynamics, namely on the basis of the chart methods or on an emotional basis. In case of unclear market

developments in particular Mr. Z points out that one “then makes decisions on the basis of a feeling, somehow, hmmm, what are we going to do now?” And to sum it up he notes:

“Well, I really think, I think, I have made many decisions, probably more than allowed, based on a feeling somehow, so I can say, I think that’s it, it is rising, the time has come now, now I am going to sell and I know exactly I will be buying again in 15 minutes. I am selling now and I am going to buy again in 15 minutes and I know I will make 1% profit. And unfortunately this has happened so often that that was exactly the case and simply because I have worked in those charts.”

Mr. Z is well aware of this change of the assessment standards. He follows the chart analysis strategically but he also abandons this strategy at times. This abandonment of the strategy is evaluated ambivalently, similar to Mr. X. Since, on the one hand, a decision that is based on feelings is not controlled by the financial supervisory authority here, as in Mr. X’s case, but by a normative demand of the company Mr. Z worked for. On the other hand, the success proves that Mr. Z’s actions were correct.

Thus, similar to the previous cases, Mr. Z realises that he works within a strategy and it is important for him to emphasize such a strategic approach. The charts reflect a typical progress of exchange rate developments. The difficulty in working with the chart methods is to decide how often the patterns repeat and how accurately the points shown in the charts (can) deviate from reality in actual fact. According to Mr. Z, it is for such difficult situations that a good feeling is required. Here one also generally relies upon feelings, where there is no definite guidance for decision-making. The awareness of the principal not-knowing and the reliance on one’s own emotions or feelings that becomes necessary here go side by side. It also seems to become obvious here that emotions should be used in certain situations, where no one really knows how the markets are going to develop but decisions must be made nevertheless. The reference to emotions/feelings is also an expression of a deficit: The situation cannot be tackled adequately anymore using the logic of the chosen strategy. Feelings transcend this gap and make further actions possible.

Conclusions

The analysis shows that in the cases that have been described above, all the interviewees make their decisions strategically in the first place. They aim as strongly as possible towards their favourite decision-making logic. The analysis also shows that in all cases this logic is given up reluctantly, even if all the actors seem to be aware that the deviation from the chosen strategy makes sense from the point of view of the maximization of profit. They report that they base their decisions on emotions if the given situation is unclear and cannot be apprehended to the fullest cognitively. In these cases, emotions provide important information or signal concerning how to decide upon investment strategies, and they bridge the uncertainty in the respective situation between what is known and what is felt to happen in the future. This uncertainty can have various causes, such as lack of knowledge of economic developments, uncertainty regarding the right timing, unforeseen situations, and it can be due to the reflexivity of interactions etc. Emotions are a bridge because they transcend the impossibility to make decisions on a purely cognitive basis in the current situation and make further actions possible. This role of emotions as a bridge connecting two worlds (Berger, 1998; Katz, 1999) or as a bridge necessary to overcome a deficit (Fuchs, 2004) was stressed by sociologists from different theoretical traditions. Specifically the data show that it is the “good feeling” that the anticipated decision is correct and will bring about the expected result which bridges the fundamental uncertainty (Keynes, 1964; Beckert, 2013). Hence, the data indicate that emotions allow for the uninterrupted continuation of financial transactions. Consequently, emotions have an important function in the process of investment decision-making and for the

dynamics of the financial markets. This interpretation, though it does not come without a methodological discussion as stressed in this article, is supported by findings made by economic sociologists (DiMaggio, 2002; Hassoun, 2005; Beckert, 2006; Bandelj, 2009; Beckert, 2013; Flam, 2013), economics (Keynes, 1964), and behavioural scientists (Bechara & Damasio, 2005).

What the data also indicate is that emotions may not be the only mechanism of overcoming uncertainty. Although not elaborated on in this article, the interview passages hint at the role of cognitive knowledge, professional training, and at the role of social networks. How these different mechanisms are weighted with regard to overcome fundamental uncertainty is an important question for future research. It also stands to reason whether professional training might have a bearing on the influence of emotions in decision making on the financial markets. Of importance is also the need to find out about the quantitative distribution of the findings presented in this article. This article shows that emotions matter for investors independent of their chosen investment strategy. But the article cannot show if these findings apply to all investment areas on all hierarchies. This is left for future research. There is some plausibility to indicate similar findings for other investment areas since financial markets, in their essence, are characterized by fundamental uncertainty due to the reflexivity of action.

The fact that emotions are referred to as typical justification logics of the decision-making processes under conditions of fundamental uncertainty is certainly of interest for the sociology of economics in particular and for sociology as a whole. Since this fact suggests that the legitimized and seemingly secure justification logics of decisions and actions, especially the appeal to cognitive evaluation, verifiability and hence their scientific nature, are showing cracks. The study shows that the situations, where rational decisions cannot be made by cognitive evaluation alone, are still tackled, but not by the development of better techniques of coping with contingency and enhancement of the evaluation model. Rather the actors admit the limit of cognitive evaluation; they acknowledge the unpredictability of the future. In order to transcend this limitation the interviewees do not try to rely on better models or more accurate calculations. Rather, the “good feeling” that the decision will be right and the feeling of confidence in the rightness of one’s decision are used to cope with fundamental uncertainty. Therefore, as Beckert (2013, p. 236) develops, confidence and the “good feeling” are a form of fictional expectations, where images of the future and former experiences, as well as situational aspects inform each other in a decision situation.

The findings further indicate that in situations of fundamental uncertainty decisions are informed by a twofold (or manifold) decision logic. On the one hand, investors evaluate the situation cognitively by means of their chosen strategy. On the other hand, this step is supplemented by emotions. Cognitive evaluation and emotions are not to be regarded as a form of incomplementarity, rather they complement and supplement each other in one single decision. The influence of emotions stands for a specific deal with fundamental uncertainty. Fundamental uncertainty, as discussed in the beginning of this article, does not mean no knowledge or complete ignorance, rather it implies certain visions of the range of possible future outcomes. Emotions enable a specific handling of this lack of knowledge brought about by fundamental uncertainty. In addition, I would argue, this handling of a lack of knowledge has not to be regarded as an indication of unprofessionalism. On the contrary, it indicates a professional competence to deal with a specific kind of not knowing (Wilkesmann, 2010).

I want to conclude that in times where the “Black Swan” (Taleb, 2008b) is not an exception but becomes a structuring feature of the financial markets, the role emotions as a mechanism to deal with fundamental

uncertainty will grow. Consequently, for economic sociology, the emotional basis of economic decisions and action should be regarded more seriously (Bandelj, 2009; Senge, 2013; Senge & Zink, 2019).

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